



GAS COMBUSTION TYPE IMPACT TOOL

Technical Field:

OK to Enter
CAB
4/10/07

[0001] The present invention relates to a gas combustion type impact tool, in which a gaseous mixture is formed by mixing a combustible gas and air in a combustion chamber formed on an upper side of a driving cylinder. A driving piston held in the driving cylinder is driven by pressure from combustion gas generated by combusting the gaseous mixture in the combustion chamber, and thus a nail striking operation and the like are carried out.

Background Art:

[0002] As an example of the gas combustion type impact tool, a combustion gas driven nailing machine is known, which is adapted to inject a combustible gas into a sealed combustion chamber and form a gaseous mixture of the combustible gas and air therein, burn the gaseous mixture in the combustion chamber, generate a high-pressure combustion gas therein, exert the high-pressure combustion gas on a driving piston held in a driving cylinder, drive the driving piston with an impact thereon to strike a nail into a steel plate and concrete by a driver coupled to a lower surface of the driving piston. In such a combustion gas driving nailing machine, a container, such as a gas bottle filled with a combustible gas, is fixed in the machine. A battery is used as an electric power source for igniting the combustible gas. The combustion gas driving nailing machine is thus formed as a portable machine. This enables a nail and a pin driving operation to be carried out without being restricted by a power supply source, such as an electric power source and a compressed air supply source.

[0003] In the combustion gas driving nailing machine, a cylinder slidably holding a driving piston therein is provided in the housing. On the lower surface of the driving piston, a nail striking driver is connected. The driver is held and guided in a nail discharge port formed in a nose coupled to a lower portion of the housing. When the driving piston is driven in the driving cylinder, the driver joined to the driving piston is driven with an impact in the nail discharge port. A nail supplied to the interior of the nail discharge port of the nose is driven from the nail discharge port toward a work provided at a free end of the nose.